

Remarks

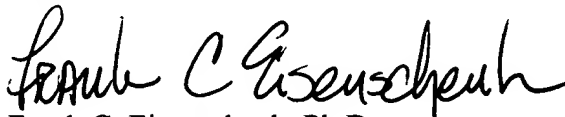
Claims 121-141, 150-152, and 163-171 are pending and subject to a restriction requirement in this application. By way of the amendment of this date and the amendment of June 18, 2001, claims 152, and 172-182 have been amended. Therefore, claims 121-141, 150-152, and 163-182 are now before the Examiner for consideration. The subject invention provides unique and advantageous methods related to PCTA-1-related biallelic markers and complements thereof. Certain of the claims have been amended for the purpose of expediting the patent application process in a manner consistent with the Patent and Trademark Office Patent Business Goals (PBG), 65 Fed. Reg. 54603 (September 8, 2000), advance prosecution, and facilitate the business interests of Applicants. Support for these new claims and the amendments to the pending claims can be found throughout the subject specification, including, for example, at pages 104-106. Favorable consideration of the claims now presented, in view of the remarks and amendments set forth herein, is earnestly solicited.

In response to the Notice of Incomplete Response dated October 1, 2001, and pursuant to a discussion with Examiner Zeman, Applicants have provided a substitute sequence listing containing SEQ ID No:12. SEQ ID No:12 contains the appropriate symbols that correspond to the election of June 18, 2001; SEQ ID No:12 has been provided for searching purposes and Applicants respectfully submit it does not constitute new matter. Applicants hereby elect the sequence of SEQ ID No:12 for examination.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

Applicants also invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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Attachments: Marked-Up Version of Amended Claims
(Amendment) Transmittal Form
Submission of Sequence List and Statement
Paper and CRF versions of the Sequence List

Marked-Up Version of Amended ClaimsClaim 141 (Twice Amended):

The method according to claim 132, wherein said case control population is a random population.

Claim 151 (Twice Amended):

The method according to claim 121, wherein said PCTA-1-related biallelic marker is selected from the group consisting of biallelic markers of SEQ ID No:12 located at positions 278, 402, 472, 2955, 12167, 12536, 17593, 17606, 22079, 28964, 29003, 31077, 31766, 34791, 45751, 49847, 49855, 49886, 49900, 49906, 49921, 49939, 50256, 54955, 64239, 65436, 65496, 66967, 66987, 67092, 67129, 67229, 67433, 67723, 67834, 67955, 68213, 68263, 68375, 68477, 68525, 68594, 68610, 70566, 70728, 80038, 80118, 80170, 80183, 80435, 82090, 82165, 82169, 82218, 82234, 82268, 82393, 83587, 83643, 83644, 83808, 83881, 83884, 83909, 83937, 83947, 83982, 83988, 84047, 84092, 84145, 85202, 86259, 86323, 87713, 87735, 87787, 87806, 87860, 87902, 87980, 88012, 88215, 88283, 88297, 88442, 88471, 88480, 89394, 89464, 89471, 89658, 92760, 93023, 93055, 93247, 93319, 93323, 93388, 93393, 93418, 93515, 93726, 93903, 94170, 94218, 94269, 94290, 94422, 94432, 94720, 94989, 95261, 95340, 95497, 95770, 95819, 96145, 96181, 96350, 96951, 97144, 97276, 102267, 105937 and complements thereof.

Claim 152 (Thrice Amended):

The method according to claim 150, wherein said PCTA-1-related biallelic marker is at least one PCTA-1-related biallelic marker located at position 402, 67092, 68525, 82234, or 82393 of SEQ ID No:12, and any complement thereof.

Claim 167 (Amended):

The method according to claim 131, wherein said PCTA-1-related biallelic marker is selected from the group consisting of biallelic markers of SEQ ID No:12 located at positions 278, 402, 472, 2955, 12167, 12536, 17593, 17606, 22079, 28964, 29003, 31077, 31766, 34791, 45751, 49847,

49855, 49886, 49900, 49906, 49921, 49939, 50256, 54955, 64239, 65436, 65496, 66967, 66987, 67092, 67129, 67229, 67433, 67723, 67834, 67955, 68213, 68263, 68375, 68477, 68525, 68594, 68610, 70566, 70728, 80038, 80118, 80170, 80183, 80435, 82090, 82165, 82169, 82218, 82234, 82268, 82393, 83587, 83643, 83644, 83808, 83881, 83884, 83909, 83937, 83947, 83982, 83988, 84047, 84092, 84145, 85202, 86259, 86323, 87713, 87735, 87787, 87806, 87860, 87902, 87980, 88012, 88215, 88283, 88297, 88442, 88471, 88480, 89394, 89464, 89471, 89658, 92760, 93023, 93055, 93247, 93319, 93323, 93388, 93393, 93418, 93515, 93726, 93903, 94170, 94218, 94269, 94290, 94422, 94432, 94720, 94989, 95261, 95340, 95497, 95770, 95819, 96145, 96181, 96350, 96951, 97144, 97276, 102267, 105937 and complements thereof.

Claim 168 (Amended):

The method according to claim 132, wherein said PCTA-1-related biallelic marker is selected from the group consisting of biallelic markers of SEQ ID No:12 located at positions 278, 402, 472, 2955, 12167, 12536, 17593, 17606, 22079, 28964, 29003, 31077, 31766, 34791, 45751, 49847, 49855, 49886, 49900, 49906, 49921, 49939, 50256, 54955, 64239, 65436, 65496, 66967, 66987, 67092, 67129, 67229, 67433, 67723, 67834, 67955, 68213, 68263, 68375, 68477, 68525, 68594, 68610, 70566, 70728, 80038, 80118, 80170, 80183, 80435, 82090, 82165, 82169, 82218, 82234, 82268, 82393, 83587, 83643, 83644, 83808, 83881, 83884, 83909, 83937, 83947, 83982, 83988, 84047, 84092, 84145, 85202, 86259, 86323, 87713, 87735, 87787, 87806, 87860, 87902, 87980, 88012, 88215, 88283, 88297, 88442, 88471, 88480, 89394, 89464, 89471, 89658, 92760, 93023, 93055, 93247, 93319, 93323, 93388, 93393, 93418, 93515, 93726, 93903, 94170, 94218, 94269, 94290, 94422, 94432, 94720, 94989, 95261, 95340, 95497, 95770, 95819, 96145, 96181, 96350, 96951, 97144, 97276, 102267, 105937 and complements thereof.

Claim 169 (Amended):

The method according to claim 133, wherein said PCTA-1-related biallelic marker is selected from the group consisting of biallelic markers of SEQ ID No:12 located at positions 278, 402, 472, 2955, 12167, 12536, 17593, 17606, 22079, 28964, 29003, 31077, 31766, 34791, 45751, 49847, 49855, 49886, 49900, 49906, 49921, 49939, 50256, 54955, 64239, 65436, 65496, 66967, 66987,

67092, 67129, 67229, 67433, 67723, 67834, 67955, 68213, 68263, 68375, 68477, 68525, 68594, 68610, 70566, 70728, 80038, 80118, 80170, 80183, 80435, 82090, 82165, 82169, 82218, 82234, 82268, 82393, 83587, 83643, 83644, 83808, 83881, 83884, 83909, 83937, 83947, 83982, 83988, 84047, 84092, 84145, 85202, 86259, 86323, 87713, 87735, 87787, 87806, 87860, 87902, 87980, 88012, 88215, 88283, 88297, 88442, 88471, 88480, 89394, 89464, 89471, 89658, 92760, 93023, 93055, 93247, 93319, 93323, 93388, 93393, 93418, 93515, 93726, 93903, 94170, 94218, 94269, 94290, 94422, 94432, 94720, 94989, 95261, 95340, 95497, 95770, 95819, 96145, 96181, 96350, 96951, 97144, 97276, 102267, 105937, and complements thereof.

Claim 170 (Amended):

The method according to claim 135, wherein said PCTA-1-related biallelic marker is selected from the group consisting of biallelic markers of SEQ ID No:12 located at positions 278, 402, 472, 2955, 12167, 12536, 17593, 17606, 22079, 28964, 29003, 31077, 31766, 34791, 45751, 49847, 49855, 49886, 49900, 49906, 49921, 49939, 50256, 54955, 64239, 65436, 65496, 66967, 66987, 67092, 67129, 67229, 67433, 67723, 67834, 67955, 68213, 68263, 68375, 68477, 68525, 68594, 68610, 70566, 70728, 80038, 80118, 80170, 80183, 80435, 82090, 82165, 82169, 82218, 82234, 82268, 82393, 83587, 83643, 83644, 83808, 83881, 83884, 83909, 83937, 83947, 83982, 83988, 84047, 84092, 84145, 85202, 86259, 86323, 87713, 87735, 87787, 87806, 87860, 87902, 87980, 88012, 88215, 88283, 88297, 88442, 88471, 88480, 89394, 89464, 89471, 89658, 92760, 93023, 93055, 93247, 93319, 93323, 93388, 93393, 93418, 93515, 93726, 93903, 94170, 94218, 94269, 94290, 94422, 94432, 94720, 94989, 95261, 95340, 95497, 95770, 95819, 96145, 96181, 96350, 96951, 97144, 97276, 102267, 105937 and complements thereof.

Claim 171 (Amended):

The method according to claim 150, wherein said PCTA-1-related biallelic marker is selected from the group consisting of biallelic markers of SEQ ID No:12 located at positions 278, 402, 472, 2955, 12167, 12536, 17593, 17606, 22079, 28964, 29003, 31077, 31766, 34791, 45751, 49847, 49855, 49886, 49900, 49906, 49921, 49939, 50256, 54955, 64239, 65436, 65496, 66967, 66987, 67092, 67129, 67229, 67433, 67723, 67834, 67955, 68213, 68263, 68375, 68477, 68525, 68594,

68610, 70566, 70728, 80038, 80118, 80170, 80183, 80435, 82090, 82165, 82169, 82218, 82234, 82268, 82393, 83587, 83643, 83644, 83808, 83881, 83884, 83909, 83937, 83947, 83982, 83988, 84047, 84092, 84145, 85202, 86259, 86323, 87713, 87735, 87787, 87806, 87860, 87902, 87980, 88012, 88215, 88283, 88297, 88442, 88471, 88480, 89394, 89464, 89471, 89658, 92760, 93023, 93055, 93247, 93319, 93323, 93388, 93393, 93418, 93515, 93726, 93903, 94170, 94218, 94269, 94290, 94422, 94432, 94720, 94989, 95261, 95340, 95497, 95770, 95819, 96145, 96181, 96350, 96951, 97144, 97276, 102267, 105937 and complements thereof.

Claim 173 (Amended):

The method according to claim 172, wherein said combination of markers is located at positions 67092 and 68525 of SEQ ID-~~NO. 1~~ No:12.

Claim 174 (Amended):

The method according to claim 172, wherein said combination of markers is located at positions 402, 67092, and 68525 of SEQ ID-~~NO. 1~~ No:12.

Claim 175 (Amended):

The method according to claim 172, wherein said combination of markers is located at positions 402 and 82393 of SEQ ID-~~NO. 1~~ No:12.

Claim 176 (Amended):

The method according to claims 172, wherein said combination of markers is located at positions 402, 67092, 68525, 82234, and 82393 of SEQ ID-~~NO. 1~~ No:12.

Claim 177 (Amended):

The method according to claim 133, wherein said PCTA-1-related biallelic marker is at least one PCTA-1-related biallelic marker located at position 402, 67092, 68525, 82234, or 82393 of SEQ ID-~~NO. 1~~ No:12, and any complement thereof.

Claim 179 (Amended):

The method according to claim 177, wherein said combination of markers is located at positions 67092 and 68525 of SEQ ID-~~NO. 1~~ No:12.

Claim 180 (Amended):

The method according to claim 177, wherein said combination of markers is located at positions 402, 67092, and 68525 of SEQ ID-~~NO. 1~~ No:12.

Claim 181 (Amended):

The method according to claim 177, wherein said combination of markers is located at positions 402 and 82393 of SEQ ID-~~NO. 1~~ No:12.

Claim 182 (Amended):

The method according to claims 177, wherein said combination of markers is located at positions 402, 67092, 68525, 82234, and 82393 of SEQ ID-~~NO. 1~~ No:12.